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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,605	10/20/2000	Ashraf Madoukh	15247.6	8437

21129 7590 10/06/2005
SPENCER, FANE, BRITT & BROWNE
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KANSAS CITY, MO 64106-2140

EXAMINER

SHERKAT, AREZOO

ART UNIT PAPER NUMBER

2131

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/693,605	MADOUKH ET AL.	
	Examiner	Art Unit	
	Arezoo Sherkat	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28, 40-79, 98 and 99 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28, 40-79, 98 and 99 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/28/05</u> | 6) <input type="checkbox"/> Other: _____ |

91

Election/Restrictions

Applicant's election without traverse of the claims of group I, that is claims 1-28, 40-70, and 98-99 in the reply filed on July 12, 2005 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-8, 10-28, 40-52, 54-57, 63- 66, and 98-99 are rejected under 35 U.S.C. 102(b) as being anticipated by Linehan et al., (U.S. Patent No. 5,495,533 and Linehan hereinafter).

Regarding claims 1, 6-8, 10, 17-21, 26-28, 40-44, and 98-99, Linehan discloses a computer readable medium containing a database structure for storage of encrypted data, the database structure comprising: at least one data entity encrypted by at least one encryption key, the data entity having at least one searchable attribute, and at least one encryption key identification in association with the data entity and corresponding to the encryption key (Col. 7, lines 30-67 and Col. 4, lines 1-26).

Regarding claims 2, 5, 11, 13-16, 22-25, 45-50, and 66 Linehan discloses wherein the at least one encryption key identification is encrypted by a system key (i.e., control key)(Col. 9, lines 10-59).

Regarding claims 12, 63 and 65, Linehan discloses wherein the data entity and encryption key identification are stored in a first database (i.e., personal key client), and further comprising storing the encryption key in a second database (i.e., personal key database/server)(Col. 9, lines 10-59).

Regarding claims 51-52, 55-57, and 64, Linehan discloses further comprising checking for expiration of the system key, and upon expiration of the system key, discontinuing use of the system key and generating and using a new system key (Col. 8, lines 65-67 and Col. 9, lines 1-10).

Regarding claims 70 and 73, Linehan discloses a method for storage and retrieval of encrypted data, the method comprising:

encrypting a plurality of data entities with a rotating and dynamic encryption key having an encryption key identification, storing the data entities, and creating and rotating to a new encryption key upon occurrence of a desired rotation event (Col. 8, lines 65-67 and Col. 9, Lines 1-58).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 9, 53-54, 58-59, 67-69, 71-72, and 74-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linehan et al., (U.S. Patent No. 5,495,533 and Linehan hereinafter), in view of Kaufman et al., (U.S. Patent No. 5,764,772 and Kaufman hereinafter).

Regarding claims 3-4, 9, and 53, Linehan discloses wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value (i.e., system key index numbers) stored in association with the system common name (Col. 9, lines 10-25).

Linehan does not expressly disclose wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value stored in association with the system common name.

However, Kaufman discloses wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value stored in association with the system common name (Col. 8, lines 20-67 and Col. 9, lines 1-63).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify teachings of Linehan with teachings of Kaufman because it would allow to include wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value stored in association with the system common name with the motivation to make it impossible to make an undetected modification to the encrypted key field once the encrypted message was generated (Kaufman, Col. 10, lines 20-37).

Regarding claims 54, 58-59, 67-69, 71-72, and 74-79, Linehan discloses a computer readable medium containing a database structure for storage of encrypted data, the database structure comprising: at least one data entity encrypted by at least one encryption key, the data entity having at least one searchable attribute, and at least one encryption key identification in association with the data entity and corresponding to the encryption key (Col. 7, lines 30-67 and Col. 4, lines 1-26), and requesting a data manipulation using a searchable attribute, searching for matches to the searchable attribute (Col. 7, lines 54-67 and Col. 8, lines 8-17), searching for the system key common name, searching for the system key using the system key common name, decrypting the encryption key identification with the system key, searching for the encryption key using the encryption key identification, and decrypting the data entity with the encryption key (Col. 9, lines 10-58).

Linehan does not expressly disclose searching for the system key common name using the system key hash value.

However, Kaufman discloses wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value stored in association with the system common name (Col. 8, lines 20-67 and Col. 9, lines 1-63).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify teachings of Linehan with teachings of Kaufman because it would allow to include wherein the system key common name is hashed, and the data structure further comprising a system key common name hash value stored in association with the system common name with the motivation to make it impossible to make an undetected modification to the encrypted key field once the encrypted message was generated (Kaufman, Col. 10, lines 20-37).

Claims 60-62 and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linehan et al., (U.S. Patent No. 5,495,533 and Linehan hereinafter), in view of Kaufman et al., (U.S. Patent No. 5,764,772 and Kaufman hereinafter), in further view of Alegre et al., (U.S. Patent No. 6,199,113 and Alegre hereinafter).

Regarding claims 60-62 and 71-72, Linehan does not expressly disclose further comprising generating a new encryption key for each user action.

However, Alegre discloses further comprising generating a new encryption key for each user action (i.e., session keys with expiration criteria)(Col. 5, lines 7-67 and Col. 6, lines 1-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the combined teachings of Linehan and Kaufman with the teachings of Alegre because it would allow to include generating a new encryption key for each user action with the motivation to allow access by users on the Internet in a controlled and secure manner and to better prevent breach of security and improper access to resources (Alegre, Col. 2, lines 24-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arezoo Sherkat whose telephone number is (571) 272-3796. The examiner can normally be reached on 8:00-4:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/693,605
Art Unit: 2131

Page 8

A handwritten signature in black ink, appearing to read 'A. Sherkat'. The signature is fluid and cursive, with a large, stylized 'A' and a long, sweeping tail.

Arezoo Sherkat
Patent Examiner
Group 2131
Oct. 3, 2005